NEW HAMPSHIRE POLLUTION PREVENTION PROGRAM

Summer 2003

# Wastelines

## Building a Deck, Swing Set or Gazebo? Know the Facts About Pressure Treated Wood

Pressure treated wood is commonly used in residential settings to build decks, walkways, picnic tables, fences, gazebos, boat docks, and playground equipment. Chromated copper arsenic (CCA) is the wood preservative commonly used in residential pressure treated lumber, to protect wood from dry rot, fungi, molds, termites and other pests. CCA, often identified by its greenish tint, is currently being reassessed by the U.S. Environmental Protection Agency (EPA) due to its arsenic content. As of January 1, 2004, EPA will not allow CCA products to be used to treat wood intended for most residential settings. Existing structures built from CCA treated wood are not affected by this action.

Studies have shown that rainwater can leach the arsenic out of the pressure treated wood and into the soil. The rainwater can also leave an arsenic residue on the wood surface. EPA is currently undergoing a risk assessment on CCA, but at this time feels any exposure to arsenic should be reduced. Arsenic is a known human carcinogen, and can be absorbed through the skin.

CCA treated wood should not be used where routine contact with food or animal feed occurs. Also, do not use treated wood as compost or mulch. To minimize any exposure to arsenic, the wood surface can be sealed every one to two years with an oil based stain or polyurethane. This has been shown to reduce the amount of arsenic that can leach from the treated wood.

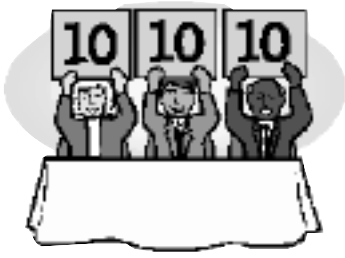
There are a number of alternatives to using CCA treated wood. New wood preservatives are being registered by the EPA, and are filtering into the marketplace. Untreated wood (cedar or redwood), as well as non-wood alternatives (plastics, metal composite materials, wood-polymer composites) are available. Check with your local hardware store or lumberyard for their suggested alternatives.

Homeowners should never burn CCA treated wood, as this would release toxic chemicals into the air, and also result in an ash residue that is considered hazardous. CCA treated wood can be disposed of in the regular trash (municipal sold waste, not yard waste) or landfill.

To learn more about pressure treated wood and the available alternatives, visit the EPA web site at www.epa.gov/pesticides/factsheets/chemicals. To learn more on disposal options, visit the DES website at www.des.state.nh.us/SWTAS.

**INSIDE THIS ISSUE**

## Study Verifies Success of P2 Programs




The National Pollution Prevention Roundtable released the first national pollution prevention (P2) results study, *An Ounce of Prevention is Worth 167 Billion Pounds of Cure – A Decade of Pollution Prevention Results 1990 – 2000*. The report details pollution prevention activities that resulted in a total reduction of 167 billion pounds of pollutants and savings of $666 million nationwide. The report showed for every dollar spent on state and local technical assistance programs, the regulated community reported six dollars of savings. The overall results are conservative, as the report did not include P2 efforts by private corporations that have voluntarily instituted P2 programs. Energy and water conservation programs also documented savings. During the 10-year period, P2 programs helped implement and document 4.1 billion gallons of water conserved and 215 million kilowatts of energy conserved.

To read the complete document online, visit www.p2.org/p2results/2418_historyfinal.pdf

## DES Hazardous Waste Coordinator Certification Program Up and Running

The first-in-the-nation Hazardous Waste Coordinator (HWC) Certification program is off to a great start. After four one-day workshops in Concord, Manchester and Boscawen, 120 attendees have participated in the program, with 92 percent of the attendees passing the certification exam. Future workshop locations include Littleton, Keene, Laconia and the Seacoast.

The goal of the certification program is to ensure that each generator has on staff a HWC empowered with the knowledge to communicate the applicable State of N.H. *Hazardous Waste Rules* to the generator. Every facility generating more than 220 pounds of hazardous in any one month will need to send at least one person from each facility location to an initial certification course in 2003 to become certified.

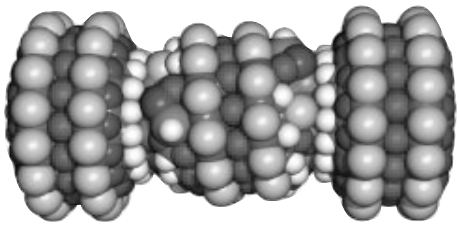
The program has been well received by the regulated community, with attendees pleased to meet and talk with DES regulators in a positive and productive forum. The basic course agenda focuses on hazardous waste determination, classification and notification; proper storage, packaging and labeling of hazardous waste; inspection and reporting requirements; personnel training required of full quantity generators; contingency plans; used oil; universal waste requirements; and pollution prevention. For more information, please contact Sue Francesco, DES Hazardous Waste Certification Manager, at (603) 271-2967, or sfrancesco@des.state.nh.us, or visit www.des.state.nh.us/hwcs/HWCCert/

"Excellent class, speakers were effective. I walked away with more from this than I ever expected I would. GREAT JOB!"
-Workshop attendee

# Technology Update: Nanotechnology
# Science Fiction or Future Pollution Prevention Tool?

**Article Condensed from US EPA Research and Development**

Nanotechnology has the potential to advance pollution prevention, waste treatment and remediation, and manufacturing in a new way for the next century. Nanotechnology is the ability to work at the molecular level, atom-by-atom, to create new structures. Molecular nanotechnology will be achieved when scientists are able to build things from the atom up, and rearrange matter with atomic precision. These particles are at the nanometer scale, one billionth of a meter. To put it in perspective, a nanometer is about 10,000 times narrower than a strand of human hair.



While this technology does not currently exist, it relies on the principal that almost any chemically stable structure, not specifically disallowed by the laws of physics, can be built. Nanotechnology may offer the ability to improve characterization of environmental problems, reduce environmental impacts from "cleaner" manufacturing technologies, and reduce material and energy use.

In fiscal year 2003, the U.S. Environmental Protection Agency's Science to Achieve Results grant program funded approximately $5 million for environmental nanotechnology research. The focus will be on "green manufacturing and processing" to eliminate or minimize harmful emissions from industrial processes; techniques to remediate or treat environmental pollutants; and sensor technology for environmental contaminants.

Why would scientists want to develop this technology? Once scientists can capture, position and change the configuration of a molecule, remediation of hazardous waste and pollution prevention strategies will advance dramatically. This technology will facilitate the process of tracking and treating groundwater pollutants, and treat automobile exhaust gas. For example, a new program is now being funded to create a nanocomposite-based filter for arsenic removal from drinking water, and nanofibrous manganese dioxide for emission control of volatile organic compounds (VOCs). Scientists also predict manufacturing will become less expensive, since manufacturers would be able to recycle all waste products produced by a manufacturing process. To learn more on this topic, visit www.epa.gov/ord/archives/2003/february/htm/article.htm

## Many Northeast Manufacturers Unaware of "Lean" Manufacturing Advantages

The Society of Manufacturing Engineers (SME) recently completed a study of Northeast manufacturing needs. The study found that only one in four small to midsized manufacturers are pursuing lean manufacturing. Traditional manufacturing thinking stresses high use of machinery and manpower and gives little thought for cycle time or manufacturing waste. Lean manufacturing focuses on creating greater production efficiencies while minimizing wastes. Lean manufacturing does more to reduce cycle times, and increase capacity, productivity, quality and profits.

For a copy of the complete report, "Reporting of Lean Manufacturing Needs Assessment of Northeast Manufacturers" call the SME Resource Center at (800) 733-4763.

## Time to Show Off Your Waste Minimization Project and Partner with EPA

National Waste Minimization Partnership Program

EPA's Waste Minimization Program works with companies to find ways to help them reduce the amount of waste they generate. Waste minimization includes source reduction (reduction or elimination of waste generated at the source) and recycling, but does not include treatment. EPA's newest waste minimization effort is the National Waste Minimization Partnership Program. This program encourages EPA, state and local governments, manufacturers and other commercial companies to form voluntary partnerships that reduce the generation of hazardous wastes containing any of the 30 Waste Minimization Priority Chemicals.

EPA is looking for manufacturing facilities in New Hampshire to showcase ideas and approaches to chemical and industrial source reduction and recycling. Companies interested in becoming Waste Minimization Partners are eligible to receive public recognition for their contribution to the National Waste Minimization Partnership reduction goal. Lead is an example of one of the 30 waste minimization priority chemicals. New Hampshire has many circuit board manufacturers that use lead solder in their processes. If you have worked to reduce the use of lead solder in this process, consider enrolling in the program and getting the recognition you deserve. For more information, email Linda Darveau, EPA Region 1 at darveau.Linda@epamail.epa.gov, or visit www.epa.gov/wastemin.

## NHPPP Answers Your Environmental Questions

If you have an environmental question you would like to see answered, please email cschwalbe@des.state.nh.us

**I own a motor vehicle salvage facility and I think I conduct my business in an environmentally sound manner. However, since my business is located in a residential neighborhood, I get complaints all the time. What can I do to show my neighbors that I am following good environmental management practices?**

While motor vehicle salvage facilities (MVSF) obtain their licenses to operate from local town officials, not a state agency, your facility can receive "environmental certification" from a new state program, known as N.H. Green Yards. DES instituted this program to help MVSF operators better understand applicable environmental regulations, and to ensure that all MVSFs operate at the same environmentally sound level. By completing an environmental self-audit and compliance certification, MVSF operators will be able to show their neighbors they are up to date with environmental best management practices. For more information on the N.H. Green Yards Program, please contact the DES at (603) 271-2938, or email nhgreenyeards@des.state.nh.us.

## Tips on Presenting an Energy Efficiency Project to Management

*This article originally appeared in the U.S. Department of Energy, Energy Matters, Winter 2001. This article is summarized and reprinted with permission U.S. Department of Energy.*

Often times, it is resistance by upper management that will be the critical barrier to implementing an energy efficiency project. These tips, although simple, will walk you through a basic presentation to successfully gain approval for your project.

**1. State the purpose of your presentation.**
Make sure all in attendance are focusing on the problem you present, knowing that a decision will have to be made.

**2. State the problem to be corrected.**
What are the existing conditions that make it important that the project be considered? What costs are involved that can be reduced? How do existing conditions affect production, staffing, maintenance and the bottom line?

**3. Describe the scope of the project being proposed.**
Describe what the project consists of in terms of equipment, labor, time, and cost to implement. This will help the decision maker get a quick understanding of what you want to accomplish and how.

**4. State the benefits to be achieved by implementing the project.**
Explain how the project will cure the problems you laid out in discussing existing conditions and improvements to the bottom line.

**5. Clearly state the cost of implementation.**
You must include all direct and indirect costs of the project. Note any additional costs for down time or start up.

**6. Explain any effect the project will have on operations.**
Will there be any adverse effects on production of other operations? If so, has this been accommodated? Has the resultant cost of any such impact been included in the estimate of the cost of implementation?

**7. Present the effect on the budget.**
Unless a windfall of new revenue exists to fund the project, funding will have to come from existing budget items that may have to be reduced. Much care should be placed on the Return on Investment (ROI), the time over which the savings to be realized by the project equal the costs of implementing it. The presenter will need to break the barrier of the lack of management awareness of real operational costs.

**8. Provide a coordinated implementating plan.**
Close the sale, summarize the need for the project and timing, review the cost/benefit analysis, and ask for a decision.

## Buying a new car?

Did you know that tailpipe emissions from trucks and cars account for up to one-third of the air pollution in the United States? Your choice of vehicle makes a difference for the environment, so shop around for the cleanest vehicle that meets your needs. The EPA's Green Vehicle Guide (www.epa.gov/greenvehicles) lets you research information on a vehicle you may purchase. If you are shopping locally for a new vehicle, look for the "Granite State Clean Car" label to identify less polluting, more fuel efficient vehicles for sale at New Hampshire dealerships. Visit www.des.state.nh.us/ard/clean_cars, or contact Mike Fitzgerald at (603) 271-1370, or mfitzgerald@des.state.nh.us.

NEW HAMPSHIRE DEPARTMENT OF
Environmental Services

New Hampshire Department of Environmental Services
6 Hazen Drive
Concord, New Hampshire 03301

First Class
U. S. Postage
PAID
Concord, NH
Permit No. 1478

*Return Service Requested*

8707

## Calendar of Events

**September 15 – 21**
National Pollution Prevention Week
www.p2.org/

**September 24**
Solid Waste Operators Conference
National Guard Armory Manchester
(603) 271-6847
Email cway@des.state.nh.us

**October 7 – 9**
EPA Workshop to Introduce an Organizational Guide to Pollution Prevention
Boston, MA
www.epa.gov/ttbnrmrl/p2workshop

**October 20 – 23**
Annual Conference on Soils, Sediments and Water
University of Massachusetts, Amherst
www.UmassSoils.com
(413) 545-1239

*Wastelines* is published by the
**NEW HAMPSHIRE POLLUTION PREVENTION PROGRAM**
For a free subscription, call, write, or e-mail
Managing Editor Colleen Schwalbe
6 Hazen Drive, Concord, New Hampshire 03301
1-800-273-9469
E-mail: cschwalbe@des.state.nh.us
web site: www.des.state.nh.us/nhppp

The New Hampshire Pollution Prevention Program (NHPPP) is a free, confidential, non-regulatory technical and compliance assistance program for New Hampshire businesses and others. The NHPPP maintains an information clearinghouse, conducts on-site pollution prevention opportunity assessments, provides pollution prevention planning assistance, and organizes conferences and workshops.

100% Recycled • 100% Post-Consumer • Process Chlorine-Free • Printed with Soy-Based Inks